

# MilAtari Limited Edition

Vol. VII, No. XII  
December 1988

## This Month: General Meeting

Sat., Dec. 17th, 12:00 Noon  
UWM - Curtin Hall, Room 175

## December SIG Schedule

SIG	Room	Time
Kid's Corner	127	Noon
8-Bit	109	2:00
ST General	119	2:00

## Exec. Board Meeting

Sun., Dec. 18th, 7:30pm  
Pepino's, 9909 W. Appleton

## Next Month: General Meeting

Sat., Jan. 17th, 12:00 Noon  
Location To Be Announced

**Be Alert For A  
Possible Change Of  
Meeting Location  
For January!**

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Lee Musial

## A Joy To Be Held!

**Powerplayer Joystick**  
Mandscape, Inc.  
**8-Bit/ST Hardware**  
**Overall Rating: Excellent**  
**Suggested Retail: \$24.99**

Remember when you where a kid and you used to have one of those ice cream bars that had square paper tray under the ice cream on the stick? Well, it seems that Mandscape has taken that idea and turned it into a new joystick called the Powerplayer.

It might just be me, but when I first saw this new joystick, the thought mentioned above immediately came to mind (no, I wasn't tempted to lick the thing-- let's not get weird here!).

Anyway, let's get down to the specifications. According to Mandscape, some of the features of their joystick are:

*"A long plug-in cord"  
"Ball bearing pivot"  
"Ultra sensitive micro-switches for better response"*

As to it having a long cord, I did some checking. I own six different joysticks, so I got out my trusty tape measure and checked 'em out. Here's a list of my findings:

Model	Cord Length
Atari Standard:	46 inches
TAC 5:	54 inches
Powerplayer:	54 inches
TAC 2:	64 inches
Wico Ergostick:	66 inches
Epyx 500XJ:	68 inches

It would seem that compared to the other joysticks, the only one that the Powerplayer beats is the Atari Standard joystick. 'Nuff said there!

The steel shaft and ball bearing pivot just means that this baby is built to last! These are basically the same features as the arcade machines use. No problem there! The ultra sensitive micro-switches are also a definite plus here.

One thing to note is that the only joystick that I own that does't use micro-switches is the Atari Standard. It uses something called bubble switches. These wear out a lot faster than micro-switches.

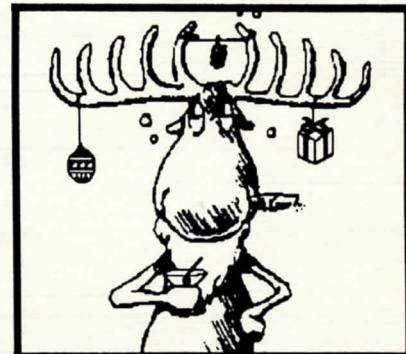
All in all, how does she stand up? Well, not to be funny, but not at all! What I mean is that this thing looks like an ice cream cone with a cord coming out of the bottom of it, so it really won't "stand up," you have to hold it.

The fire button is placed right on the handle so either left or right handed people can use it. As to the way that it responds, I would compare it to the Epyx 500XJ.

Your hand won't tire as fast either because you grip it instead of holding a "box." The place the fire button is located works out very well too.

In closing, I would highly recommend this joystick. Mandscape has made a good, durable joystick with a new design that works very well. No you can't "lick" it, but more than likely it will help you "lick" a few games!

## Season's Greetings



**MilAtari Editor holding favorite Holiday joystick.**

**MilAtari Ltd.**

The Milwaukee Area  
Atari Users Group  
Post Office Box 14038  
West Allis, WI 53214

Membership in MilAtari Ltd. is open to all individuals and families interested in personal computing. Annual dues are \$20.00 for individuals, \$25.00 per family and includes a one year subscription to this newsletter and access to club libraries. Membership applications may be obtained at the monthly meeting or by writing to the club Secretary at the above address.

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**Dennis Wilson*****ST PD Update*****DISK 186 - ACCESSORY DISK**

**DCSTUFFER:** An accessory which allows you to load more than 6 accessories into GEM. This version allows up to 32 accessories or up to the limit of your computer's memory minus 128k for desktop operations, whichever comes first. An assortment of 9 accessories is located in a folder on this disk. These include clock programs, calculators, a ramdisk, a printer program, a typewriter accessory, and Deskpac Plus. Through the use of DCSTUFFER, all of these use exactly 1 accessory slot!

**DESKPACC:** Nine integrated disk accessories, clock, calendar, phone book, programmable scientific calculator, free ram indicator, note pad, and file and delete tools.

**VIRUSKIL:** Detects and kills a virus. Not as many features as VKILLER, but faster and easier to use.

**DISK 187 - ACCESSORY AND UTILITY DISK**

This disk contains the monochrome pictures files for Deskpac Plus. The sheer size of this accessory made splitting up the files into 2 disks necessary.

**COLOR512:** Lets you add up to 496 colors to your Degas, Neo, or Tiny pictures, 16 colors can be added to each line. Also handles Spectrum 512 pictures.

**DISK 188 - UTILITY DISK**

**BRDMOUTH:** Board Mouth - A speech synthesizer to read through any ASCII text files. While speaking, a figure is displayed talking in a television set. You can create your own pictures to use in place of those given.

**DCFMT300:** Format to 80-82 sectors, 9 or 10 sectors per track, one or two sides, and normal or skewed format. Write MS Dos boot, executable boot, and sets step rate.

**FAM\_TREE:** Organize, store, and print information on your family tree. Up to 600 parents, grandparents, and great-grandparents, can be stored on a 520 ST, over 2,000 on a 1040 ST, going back up to 19 generations.

**DISK 189 - GAME DISK**

**BASEBALL:** Statistically Accurate Baseball - See how much difference you can make as manager by the end of a team's season. Included with the program are data for 4 teams, the 1986 Mets, the 1984 Cubs, the 1970 Reds, and the 1962 Giants.

**TAIPAN:** A role playing game based upon the China trade in the 1800's in which you improve your ship and amass as much money as possible in the shortest amount of time.

**DISK 190 - GAME DISK**

**MIDWAY:** Midway Battles - A naval strategy game based upon the Battle of Midway. Play the historical scenario or one of several "what if" scenarios. Limited intelligence (i.e. You cannot see the opposition's units) makes for a tense game.

**ROCKET:** An arcade game similar to Missile Command. Uses speech synthesis to talk.

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**Doug Raeburn**

## SwiftCalc ST Version 2.0

**SwiftCalc ST Version 2.0**  
**Spreadsheet Color/Mono**  
**TimeWorks, Inc.**  
**444 Lake Cook Road**  
**Deerfield, IL 60015**  
**Suggested Retail: \$79.95**  
**Upgrade Price: \$24.70**  
**Overall Rating: Excellent**

When I first purchased SwiftCalc ST about a year and a half ago, I thought it was great. I had used several other spreadsheets before SwiftCalc, but this was the first one I had ever used that supported GEM. Using a mouse and drop-down menus with a spreadsheet was a whole new world for me. I started using SwiftCalc extensively and I was quite satisfied with it.

Over time, I read a couple of reviews of SwiftCalc, and they were somewhat less enthusiastic than I was. One magazine said that they felt it was the weak link of the TimeWorks ST series (consisting of SwiftCalc ST, Data Manager ST and WordWriter ST.) Another review said that SwiftCalc was merely a keyboard-based spreadsheet with a thin layer of GEM over the top. It complained of slow scrolling and slow copying. These negative comments made me start to wonder what I might be missing.

Then, a few months ago, I received a copy of LDW Power to review for the newsletter. I must admit, I was quite amazed at the sophistication of that program. It was starting to look like it might be time to put my old favorite out to pasture and invest in LDW. After all, I had been told by TimeWorks that they were working on a major upgrade to SwiftCalc, but over a year had passed since the announcement, and I was beginning to think it might never happen.

I was just about to start looking for LDW when, lo and behold, a copy of SwiftCalc ST version 2.0 came in

the mail. I received one of the first copies, since I'm on TimeWorks' beta testers list. This could be interesting, I thought to myself - how will the upgraded SwiftCalc stack up to competitors such as LDW Power?

Well, actually, SwiftCalc and LDW Power are not strictly comparable. The two programs are aimed at different markets. LDW Power is somewhat more powerful, but also somewhat more expensive and more difficult to use by virtue of its power. It is really intended primarily for business use.

### SwiftCalc is the spreadsheet for "the rest of us"

SwiftCalc is the spreadsheet for "the rest of us", ST owners who need an affordable and powerful spreadsheet for home and/or small business use. It has always fit these requirements quite well - with the upgrade, SwiftCalc might just become the standard of comparison among medium-priced ST spreadsheets.

#### THE BASICS

SwiftCalc is a GEM-based spreadsheet supporting 8,192 rows by 256 columns. It offers approximately 50 functions in a number of categories. Mathematical functions include basic arithmetic, sums, minimums, maximums, averages, and absolute values, among others.

Logarithmic and trigonometric functions are also provided. Financial analysis functions consist of present value, future value (of a dollar or an annuity) and payments. Logical statements (IF, AND, OR) lend a high level of programmability to your spreadsheets.

Calculation selections include

automatic/manual and rowwise/columnwise (unlike LDW, natural order is not supported). Powerful and flexible graphing abilities and sideways printing are standard features. Links between spreadsheets can be defined, so that when a spreadsheet is loaded, values that have been changed in other sheets will be automatically updated in the sheet you are loading.

#### WHAT'S CHANGED

My description of SwiftCalc so far describes both the old and the new versions. So, what changes does version 2.0 have to offer?

Let me assure you, the changes are significant. They begin with the startup screen. Under the blank spreadsheet are a series of rows of function "buttons", similar to those seen in WordWriter ST. The look of the program is all new. The old dark, solid grid lines are replaced by lighter dotted lines. Where locked titles used to be in reverse video, they are now simply marked off by a single solid line. Overall, the look is much cleaner and more sophisticated.

One of the first things a veteran SwiftCalc user will notice is the improved scrolling. With the old version, you could easily get several rows ahead of the program while scrolling horizontally. You would then stop pressing the arrow keys, and the program would continue scrolling for several rows. As a result, it was fairly easy to overshoot your target. Version 2.0 scrolls very quickly - it rarely gets behind you, and it catches up almost instantly if it ever does get a bit behind.

Another function that has been improved greatly is copying. When I was testing LDW Power, I used a benchmark test that was printed in an ST magazine that required copying a complex formula to 1000 cells. I tried this copy in both LDW Power and the old version of SwiftCalc. LDW performed the copy in about 30 seconds, while SwiftCalc needed several minutes. Version 2.0 needed a mere 42 seconds to perform the same copy. Quite an improvement!

continued next page.

### **SwiftCalc Version 2.0**

from previous page.

The old version of SwiftCalc was somewhat limited in its mouse support. For example, you could move the cursor or select a single cell, but you could not select a range of cells with the mouse. Rather, you had to either type in the range limits or set the top and bottom of the desired range, depending on the chosen function. Version 2.0 remedies this shortcoming. The SET TOP and BOTTOM selections are a thing of the past. You can now select a range of cells by "rubber-banding" it. This range can be selected prior to or after activating the function.

You also can move or copy a block of cells just by using the mouse. To move a block, highlight the cell(s) desired. Then hold down the left mouse button and the ALT key and drag the cells to the new location. To copy a block, the same procedure is used, replacing the ALT key with the SHIFT key.

Another shortcoming of the old SwiftCalc was that when you selected a menu command that called for additional information, you were required to enter this information with the keyboard. Version 2.0 provides dialog boxes for these additional commands. For example, when you select the TITLES command (to lock titles), you have to specify if you want to lock titles horizontally, vertically or both. This information used to have to be entered with the keyboard. You can now provide this additional info through a dialog box and your mouse.

Other functions have improved mouse support, as well. You still have the capability of defining 8 special cell formats. The old SwiftCalc required that you type in the formats, while version 2.0 allows the parameters to be set with your mouse.

SwiftCalc has always supported 2 windows, but the old version simply split your first window in half with a black line. In version 2.0, you still have 2 windows, but now both windows are true GEM windows, and can be moved, sized and otherwise manipulated. In addition, you can now print

out formulae, a function that the old SwiftCalc lacked. Automatic column widening for numbers can be selected. Finally, all old SwiftCalc spreadsheet files are supported (although I did find that I had to adjust some cell formats.)

How does version 2.0 perform? Its copying speed is now well above average among ST spreadsheets. As for calculation time, it truly lives up to its name, performing both benchmark calculations faster than any of its competitors.

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## **All in all, SwiftCalc Version 2.0 performed admirably...it proved to be a strong competitor among ST spreadsheets.**

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As for memory, I was able to load over 12,000 cells on my 1040ST before running out. This compares to about 5,000 with LDW Power. This is a bit lower than the old SwiftCalc, but still well above average. Times for scrolling and sliding 100 cells to the right were just short of first place. File saving and opening is a bit slow, but acceptable. All in all, SwiftCalc Version 2.0 performed admirably...it proved to be a strong competitor among ST spreadsheets.

There are a couple of points about which I would like to nitpick. Ever since I first got SwiftCalc, I had some problems with errors occurring with complex IF statements that I was using to prevent division by zero. I brought this up with TimeWorks last year, and I was disappointed to see that it was not corrected. Another item is that title locking is not retained in a saved file. When you reload the file, you must relock the titles.

Also, with the old SwiftCalc, when you reloaded a document, it puts you back at the location you were when you saved it. Version 2.0 always puts you at cell A1, and you are forced to find where you were before.

Although I would like to see these items addressed as soon as possible, I must say that the version 2.0 upgrade is impressive. The improvements in speed and particularly in the GEM interface make SwiftCalc much more pleasant to use.

By the time you read this, if you are a registered owner of SwiftCalc, you should have received an offer to upgrade. I strongly recommend that you take advantage of the offer - you'll be amazed at the improvements.

TimeWorks has indeed done it again. Throughout their line, from WordWriter to Publisher ST, they offer programs packed with all of the features that most of us need, and at an affordable price. A few competitors (such as Word Perfect vs. WordWriter) may offer more features, but usually a much higher price, and sacrificing the tremendous ease of use of the Time-Works program.

Add in TimeWorks' reputation for quality documentation and superior support, and you have value that is hard to match elsewhere in ST software.

My impressions of SwiftCalc Version 2.0 are best summed up by saying that I'm no longer intending on looking for another spreadsheet. With the upgrade, SwiftCalc now provides ease of use on a par with any ST competitor, as well as an above average selection of features (now if they could just add macros...). All in all, Version 2.0 was well worth the wait.

**Doug Raeburn**

## Panasonic KX-P1124

As my duties increased in my position as secretary for this fine organization, my trusty Panasonic KX-P1080i started to lose its lustre. When you crank out anywhere from 10-30 letters at a crack, a printer that had once seemed acceptably fast suddenly becomes unbearably slow. And when you change from fanfold to single sheet paper as often as I do, sophisticated paper handling becomes a necessity. So I felt it was time to upgrade. Since 24-pin printers have become more affordable in the past year, I decided to take a look.

### Why 24-Pin - Why Not A Laser?

Desktop publishing is all the rage in the personal computer industry and, as a result, there is a lot of talk about laser printers. Indeed, if you are seriously (and professionally) into desktop publishing, a laser is the only way to go. Laser printers offer a print density of up to 300 dots per inch, as opposed to 180 dots per inch for the prevailing graphics standard for 24-pin printers. By virtue of their high print density, laser printers provide output that is nearly indistinguishable from the output of professional typesetting equipment.

However, for several reasons, a laser printer is not for everybody. First, although they have dropped considerably in price, they are still quite expensive (probably more so than our entire computer systems themselves for most of us). Also, they are expensive to maintain. They are based on technology similar to that of copying machines. If you've ever worked in a busy office, I don't have to tell you how prone to breakdowns many copying machines are. In addition, laser printers use expensive toner cartridges instead of ribbons. Finally, and perhaps most importantly, laser printers lack versatility. They can only handle single sheet paper. If you want to print large spreadsheets, database reports and

source code listings, printing that typically requires fanfold paper, you may find that a laser printer would not suit those needs. Most often, a laser printer would not be someone's only printer - it would likely be used along with a dot matrix printer. For these reasons, I think it's going to be several years before laser printers make any serious inroads into the home market.

Due to more affordable laser printers and higher quality, affordable dot matrix printers, thermal printers (other than color) and daisy wheel printers are no longer much of a factor in the printer marketplace.

## A Breakthrough In Affordable 24-Pin Printers

This leaves the impact dot matrix printer, the type that most home users own. The market is pretty well covered by two types, 9-pin and 24-pin. A pin is a small wire contained in the print head that makes the dots on the paper that form letters, graphics, etc. A 9-pin printer has 9 fairly thick diameter pins, while a 24-pin printer has 24 thin diameter pins. The thinner pins on the 24-pin printer can produce more and smaller dots in an inch than can a 9-pin printer.

As a result, output from a 24-pin printer is much sharper than that of a 9-pin. Also, with the higher number of pins, a 24-pin printer can produce near letter quality bidirectionally, with one pass of the print head. 9-pin printers typically require 2 passes of the print head for near letter quality. 24-pin output is of such high quality that to call it "near" letter quality is misleading, since it is virtually indistinguishable from typewriter output. Also, since they have been premium priced until recently, most 24-pin printers come

with convenience features not found on lower priced 9-pin printers. All things considered, the most logical choice for me to achieve my goals of better looking output, greater speed and improved versatility would be a 24-pin printer.

### The KX-P1124

My budget for a new printer was somewhat limited, so I was looking for alternatives under \$500 (preferably around \$400). My possible choices at first were 3 - the Epson LQ-500, the NEC P2200, and the ALPS Allegro. The Epson features top notch printing, but sub-par paper handling - it can't even handle envelopes. This put the Epson out of the running. The ALPS features versatile paper handling, but the print quality is not quite up to the level of the others. The NEC has print quality close to that of the Epson, and fairly good paper handling. The machine I REALLY wanted was the Epson LQ-850, for its beautiful output and superb paper handling, but I didn't have \$600 to spend.

I had just about decided on the NEC when a new printer from Panasonic, the KX-P1124, arrived in the stores. I played with it for about 1/2 hour, and I was so impressed that I purchased it on the spot. Compared to the other printers I had seen, I felt like I had found the bargain of the year.

The first thing you notice about the 1124 is its output, since most stores have a sample printout on display. The output is top notch all the way. The 1124 offers 6 built-in fonts - draft, courier, prestige, bold PS, script and sans serif. My personal favorite is the prestige, because of its typewritten appearance. The characters are very well formed, with no evidence of dottiness in the letter quality fonts. It would take a strong magnifying glass for most people to see any dots whatsoever. The draft quality, while showing some evidence of dots, is very clean and legible - definitely of superior quality when compared to the draft quality from a 9-pin printer.

The 1124 provides a variety of different pitches, from 5 all the way

continued next page.

down to 20. On a 8 1/2 inch wide piece of paper, the 20 pitch provides 160 characters per line, as opposed to 137 characters per line for most dot matrix printers with narrow carriages. Even the compressed print is well formed and easy to read. Although the 1124 is not considered a wide carriage printer, it can handle paper almost 3 inches wider than an average narrow carriage printer. This means that it can handle a standard 8 1/2 x 11 sheet sideways.

The 1124 is also quite fast. It is rated at 192 characters per second in draft and 63 in letter quality. This is about average for 24-pin printers, but over twice as fast as an average 9-pin printer in near letter quality. As I said before, letter quality takes only one pass of the print head, and it is also printed bidirectionally. These features combine to generate pages in short order. A one-page letter prints in about 56 seconds in letter quality, as opposed to 2 minutes 16 seconds with my 9-pin Panasonic.

The 1124 supports 2 graphics standards - the Epson LQ and IBM PRO X24. The LQ emulation is supported by virtually every graphics package available, since it is the defacto standard for 24-pin printers. As for graphics, I have tested the 1124 using Publisher ST.

Admittedly, you won't mistake the graphics output for a laser, but the results were quite impressive nonetheless - far superior to that of my 9-pin printer, especially when printing smaller fonts and graphics. Of course, you can always use the old trick of printing an original and then photocopying it. This smooths out the image and makes it look more like "laser printed."

All settings on the 1124 are handled through an extensive touch control panel on the front of the printer - it has no DIP switches. Other printers use DIP switches to modify default settings - the 1124 handles this with macros. You simply set up the printer the way you want (pitch, font, lines per inch, paper sensor on/off, etc.) with the

## Panasonic KX-P1124

front control panel and save those settings as a macro. There are 3 macros available, and macro 1 is always loaded when the printer is switched on. As a result, I can have the 1124 power up with letter quality, and I can quickly change to compressed for spreadsheet printing or draft for source code listings at the press of a button. Of course, other settings are easily configured with the control panel directly.

Print quality and other features aside, the thing that sets the 1124 apart from other printers in its price class is its paper handling capabilities. Unlike many other printers, fanfold and single sheet paper can coexist quite nicely with the 1124. Loading fanfold paper is a snap. The 1124 features push tractors (most lower priced printers use less convenient pull tractors). You simply place the paper in the tractors and press the memo load button. The paper then loads itself and stops with the top of the sheet precisely in alignment.

When you want to use single sheet paper, it's a simple matter. Simply press memo load again, and the fanfold paper backs out of the platen, while remaining in the tractors. Move the tractor/friction lever to friction. Then open the single sheet slot in the front of the printer. Push the paper up until it rests against the platen, and align the left edge with the paper guide - a job easily performed with one hand. Press memo load again, and the sheet loads in perfect alignment. When you are done with the single sheet paper, move the tractor/friction lever back to tractor. Press memo load again, and the fanfold paper reloads itself. What you have done is printed on single sheet paper without unloading or even touching your fanfold paper, and without wasting a single sheet.

Speaking of wasting sheets, the push tractor allows you to remove printed fanfold sheets without wasting a sheet every time to accommodate the pull tractors, as with most other dot matrix printers.

For forms that require a straighter path to the print head, such as multiple

form carbons or labels, the 1124's tractors can be used as pull tractors as well. The pull tractors also allow you to feed the paper through a slot underneath. However, the rear feed is very well handled (no conflict with incoming and outgoing paper), and it does allow you to use the more versatile push tractors.

24-pin printers have a reputation for being somewhat noisy. The print head does make a high pitched sound. However, the 1124 features extensive sound insulation in its covers, so it is actually quite quiet. The covers completely cover the interior mechanism at all times, since the paper feeds out a thin slot on the top. So that you don't have to remove the front cover to tear fanfold paper, the 1124 features a perforation tear feature. Press the perforation tear button, and the paper advances a small amount, just enough for the perforation to be used. Tear off the sheet of paper and press the perforation tear button again. The paper will back down into printing position again.

Beyond the major features, thoughtful design is in evidence even in the small touches. The tractor/friction lever is large, well marked and easy to reach, rather than half-buried and unlabeled as on many other printers. The same can be said for the print head adjustment lever. The printer and power cables are conveniently placed at the outer edges of the printer's back, so they don't interfere with fanfold paper feeding from the rear. Whenever the printer does a form feed, even while printing a document, the print head moves to the center of the platen, so that it is less likely to catch on the edges of the paper. The intelligence of the 1124's design sets it far apart from most of its competition.

You may consider the 1124 to be a bit on the large side, by virtue of its medium wide carriage. It is about 25% larger than my KX-P1080i. I personally prefer this, since two of its price competitors (the NEC and Epson described above) are quite small, almost toylike

**Panasonic KX-P1124**  
from previous page.

in appearance. The Panasonic looks substantial and well-built by comparison, in my opinion.

Panasonic has captured the top spot in the 9-pin printer market with the KX-P1091/KX-P1080 series. They did this by offering highly competitive features and high quality at a lower price than its competitors. With the KX-P1124, it looks like Panasonic is trying to do the same with the 24-pin market.

This printer goes head-to-head in performance and features with the Epson LQ-850, which sells for over \$200 more. The 1124's price, however, is in line with Epson's less expensive LQ-500, which lacks the wealth of convenience features and sophisticated paper handling offered by the Panasonic. At \$529 retail, and around \$400 street price, the 1124 offers an unbeatable price/performance quotient.

What don't I like about it? So far, I haven't found a single thing to complain about. This printer does everything that I could ask of it. Many times, when you find a so-called "bargain", you have to give up something in the line of features or performance to save money.

That's not the case with the 1124 - the advanced features and high quality that attracted me to the more expensive LQ-850 are matched by the Panasonic. (To be completely fair, the Epson is about 20% faster - a fact that seems of little consequence when you see just how speedy the 1124 is). It's a great feeling to save \$200 and not have to settle for something less than what you want.

In conclusion, I believe that the 1124 will be a runaway sales success, since it provides a feature-packed, high-performance package at the same price as (or lower than) stripped entry-level 24-pin models from the competition. With the KX-P1124, Panasonic has virtually guaranteed that more personal computer owners will be able to enjoy the quality and convenience of owning a state-of-the-art 24-pin printer.

## *Dick Laudenbach*

### *8-Bit PD Update*

#### **DISK #142 Christmas #3**

**SONGDISK:** This disk contains an AMS II collection of 16 traditional and 2 non-traditional Christmas songs.

#### **DISK #143 Christmas #4**

**LOADER:** This is the loader program to run the two music videos: Musicbox and Christmas.

**MUSICBOX:** Music video of a ballerina in a musicbox to the music of "Pretty Ballerina"

**CHRISTMS:** Music video of den with fireplace decorated for Christmas. Plays "God Rest Ye Merry Gentlemen"

**VUPIC:** Picture viewer to view the Christmas pictures on this disk with the .PIC extender.

**GIF:** The Christmas pictures on this disk with the .GIF extender require the GIF Viewer found on Disk 116

**SNOWFLK:** Watch the snowflakes fall outside the house.

#### **DISK #144**

**BLUTHNDR:** Fly your helicopter on a mission to rescue hostages while attacking the enemy guns.

**SEABAT:** This is a four player version of the classic game of Battleship.

**CHART:** Make charts of your data in both Pie and Bar form

**LBLMASTR:** Make labels and address envelopes.

**MOLABEL1:** Make both return and mailing labels plus more.

**LABLMAKR:** Simple label maker.

**LBLPRNTR:** Make labels and envelopes for Epson Printers.

**MLTICLMN:** Make multi columns of labels.

#### **DISK #145**

**ANIMATE:** A group of files for creating your own animated files. There is very limited documentation but has a lot of options.

**FOOTBALL:** A revised football game with a variety of play options. Be sure to read README.DOC file before playing.

**DISKDIR:** Utility for numbering and printing directories of your disks.

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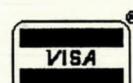
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